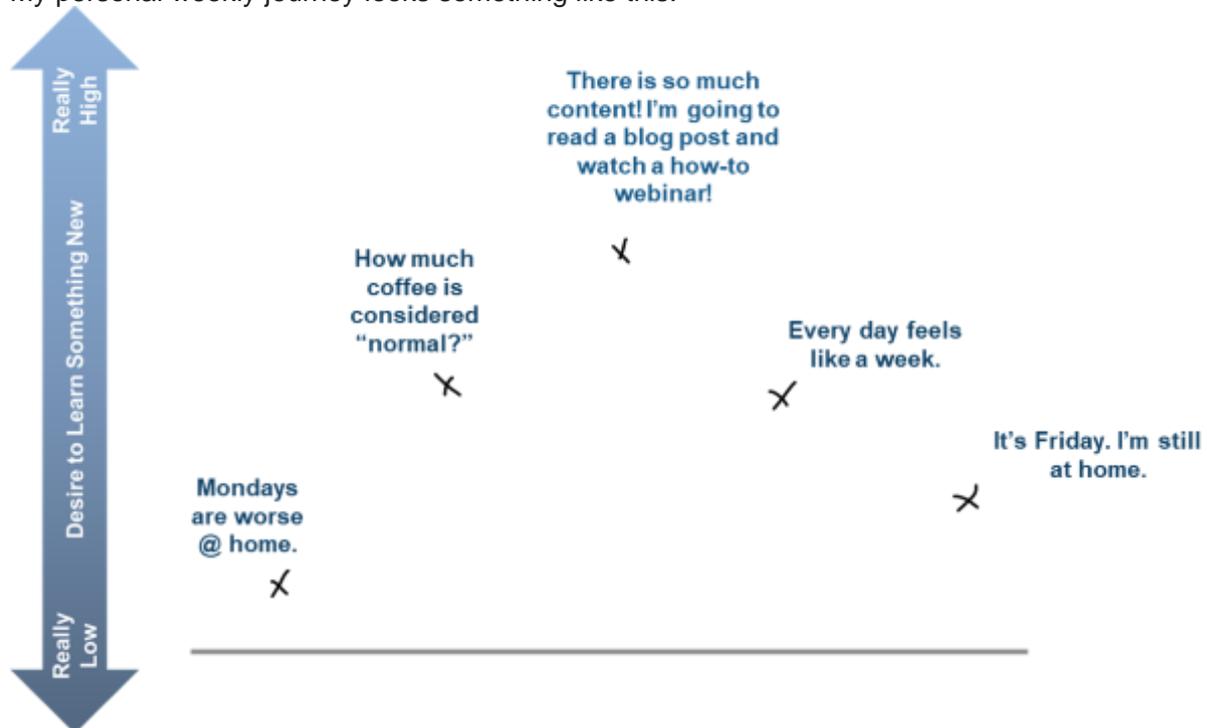# Learning Deep Learning at Home

After multiple online meetings and virtual conversations, I've learned there are many ways people are dealing with suddenly working from home. My unproven theory is people fall somewhere on this spectrum:

I would categorize a **really low** desire as, "I don't want to start anything new, let's just try to get through this." And a **really high** desire as, "I have more free time than I used to, I should learn something new!"

My personal weekly journey looks something like this:

If and when you are looking to learn new things, I've compiled a list of deep learning resources. Below is a range of deep learning resources that can take anywhere from 5 minutes to 3 hours depending on what you're looking for. I've compiled blog posts, examples, videos and full courses (all free) and categorized into different groupings I thought made sense.

Deep Learning Resources

List of Selected Blog Posts

Blog Post Title	Author	Link
Scene Classification Using Deep Learning	Guest Post: Oge Marques, Florida Atlantic University	link to post
Deep Learning Examples from 19b	Johanna Pingel	link to post
Deep Beer Designer**	Ieuan Evans, MathWorks Documentation	link to post
Cam Visualizations	Johanna Pingel	link to post
Deep Learning for Signal Processing	Frantz Bouchereau, MathWorks Development	link to post

Neural Network Feature Visualization	Maria Duarte Rosa, MathWorks Advanced Support	link to post

**Deep Beer Designer is most popular post of all time

Training and Learning Material (Beginner to Advanced)

Introduction				
Get started with MATLAB and Deep Learning in less than 60 minutes				
Category	**Title**	**Duration**	**Type**	**Link**
Phase 1: Technical Computing	Getting Started with MATLAB	7 minutes	Video	Link
Phase 1: Technical Computing	Working in the Development Environment	6 minutes	Video	Link
Phase 1: Technical Computing	Analyzing and Visualizing Data with MATLAB	4 minutes	Video	Link
Phase 2: Deep Learning	Deep Learning Introduction	12 minutes	Video	Link
Phase 2: Deep Learning	Deep Learning in 11 Lines of MATLAB Code	3 minutes	Video	Link
Phase 2: Deep Learning	Getting Started with Deep Learning Tutorial	18 minutes	Video	Link
Phase 1: Technical Computing	Live Editor Cheatsheet	--	Cheatsheet	Link
Phase 2: Deep Learning	Deep Learning Cheatsheet	--	Cheatsheet	Link

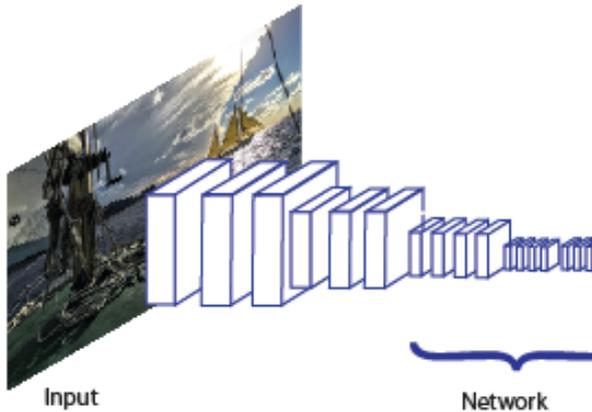| Hands-on training				
Get started with MATLAB and Deep Learning with these free hands-on tutorials				
Category	**Title**	**Duration**	**Type**	**Link**
Phase 1: Technical Computing	MATLAB Onramp	2 hours	Hands-on tutorial	Link
Phase 2: Deep Learning	Machine Learning Onramp	2 hours	Hands-on tutorial	Link
Phase 2: Deep Learning	Deep Learning Onramp	2 hours	Hands-on tutorial	Link

Deep learning Deep Dive			
Get started with Deep Learning with these interactive videos and tutorials			
Title	**Duration**	**Type**	**Link**
Deep Learning Introduction	12 minutes	Video	Link
Deep Learning in 11 Lines of MATLAB Code	3 minutes	Video	Link
Getting Started with Deep Learning Tutorial	18 minutes	Video	Link
Deep Learning Onramp	2 hours	Hands-on tutorial	Link
Deep Learning Cheatsheet	--	Cheatsheet	Link

For those looking for an even deeper dive there is instructor-led and self-paced training available for machine and deep learning.
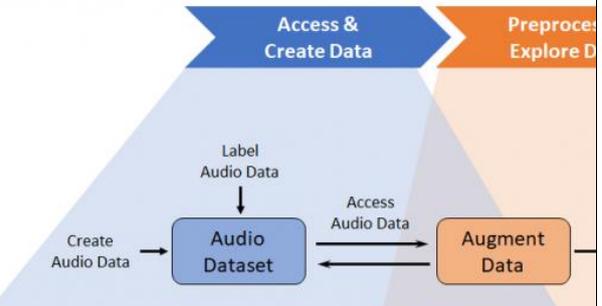
Interesting tutorials in documentation

Getting Started with Semantic Segmentation Using Deep Learning	Introduction to Deep Learning for Audio Applications
A 4-part tutorial on using deep learning to segment and label images	Learn how to develop audio applications with deep learning typically by creating and accessing data sets, preprocessing and exploring data, developing predictive models, and deploying and sharing applications

Interesting Examples
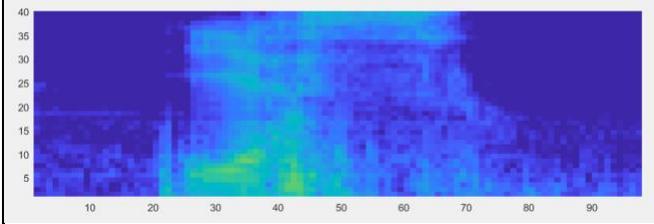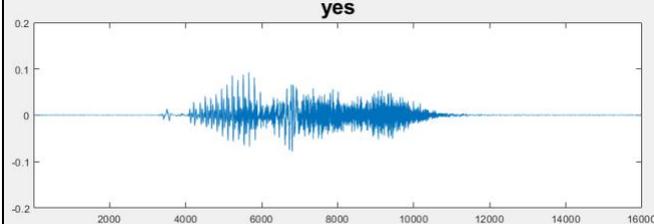
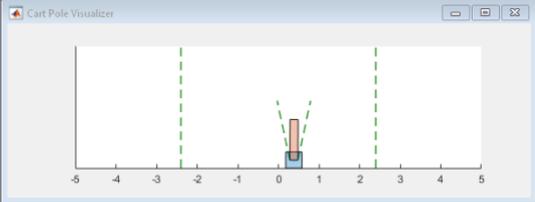| Image Captioning Using Attention Networks	Neural Style Transfer Using Deep Learning
a dog is standing on a tile floor	
Learn how to train a deep learning model for image captioning using attention.	Apply the stylistic appearance of one image to the scene content of a second image.

Speech Command Recognition Using Deep Learning	Train DQN Agent to Balance Cart-Pole System
Learn how to train a deep learning model that detects the presence of speech commands in audio.	Learn how to train a deep Q-learning network agent to balance a cart-pole system modeled in MATLAB.

To read this article in its original format, please click here